

**CLAIMS:**

1. A method of treatment of an individual suffering from a disease resulting from an abnormal expression of genes caused by aberrant splicing in cells, the method comprising:
  - 5 Administering to said cells of the individual or to tissue or organs of said individual comprising said cells, an effective amount of an alternative splicing factor (ASF), whereby said abnormal expression shifts towards normal expression of the gene.
  - 10 2. A method according to Claim 1, wherein said disease is cystic fibrosis.
  3. A method according to Claim 2, wherein the aberrant splicing is caused by a mutation 3849+10kb C->T.
  - 15 4. A method according to Claim 2, wherein the aberrant splicing is caused by a mutation in the 5T allele.
  5. A method according to Claim 1, wherein the ASF is selected from the group consisting of:
    - (i) a member of the SR protein;
    - (ii) heterogeneous nuclear ribonucleoprotein A1;
    - (iii) viral factor E4-ORF3;
    - (iv) viral factor E4-ORF6; and
    - 20 (v) an agonist of any one of (i) to (iv).
  6. A method according to Claim 1, wherein the ASF is administered to the cells or to the tissue or organs comprising the cells in a pharmaceutically acceptable vehicle.
  7. A method according to Claim 6, wherein the ASF is administered directly to the cells or to the tissue or organ comprising the cells.
  - 25 8. A method according to Claim 6, wherein the ASF is attached to a targeting moiety capable of binding specifically to said cells.

2010 RELEASE UNDER E.O. 14176